

University of Idaho Forest Utilization Research and Outreach (FUR)

STRATEGIC PLAN 2015-2019

Forest Utilization Research and Outreach (FUR)

MISSION

The Forest Utilization Research and Outreach (FUR) program is located in the College of Natural Resources at the University of Idaho. Its purpose is to increase the productivity of Idaho's forests and rangelands by developing, analyzing, and demonstrating methods to improve land management and related problem situations such as post-wildfire rehabilitation using state-of-the-art forest and rangeland regeneration and restoration techniques. Other focal areas include sustainable forest harvesting and livestock grazing practices, including air and water quality protection, as well as improved nursery management practices, increased wood use, and enhanced wood utilization technologies for bioenergy and bioproducts. In addition the Policy Analysis Group follows a legislative mandate to provide unbiased factual and timely information on natural resources issues facing Idaho's decision makers. Through collaboration and consultation FUR programs promote the application of science and technology to support sustainable lifestyles and civic infrastructures of Idaho's communities in an increasingly interdependent and competitive global setting.

OUTCOME-BASED VISION STATEMENT

The scholarly, creative, and educational activities related to and supported by Forest Utilization Research and Outreach (FUR) programs will lead to improved capabilities in Idaho's workforce to address critical natural resource issues by producing and applying new knowledge and developing leaders for land management organizations concerned with sustainable forest and rangeland management, including fire science and management, and a full range of forest and rangeland ecosystem services and products. This work will be shaped by a passion to integrate scientific knowledge with natural resource management practices. All FUR programs will promote collaborative learning partnerships across organizational boundaries such as governments and private sector enterprises, as well as landowner and non-governmental organizations with interests in sustainable forest and rangeland management. In addition, FUR programs will catalyze entrepreneurial innovation that will enhance stewardship of Idaho's forest and rangelands, natural resources, and environmental quality.

GOALS & OBJECTIVES

Goal 1: Scholarship and Creativity

Achieve excellence in scholarship and creative activity through an institutional culture that values and promotes strong academic areas and interdisciplinary collaboration among them.

Objective A: Promote an environment that increases faculty, student, and constituency engagement in disciplinary and interdisciplinary scholarship.

Strategies:

- Upgrade and development of university human resource competencies (faculty, staff and students) to strengthen disciplinary and interdisciplinary scholarship that advances the college's strategic themes and land-grant mission directly linked to FUR.
- 2. Establish, renew, remodel, and reallocate facilities to encourage funded collaborative disciplinary and interdisciplinary inquiry in alignment with FUR programs in forest operations and nursery management as well as the UI Experimental Forest, Rangeland Center, and Policy Analysis Group.

Performance Measure:

 Funding from non-FUR sources leveraged by FUR-funded laboratories, field facilities, and research, outreach, and teaching programs.
 benchmarks.

Benchmark:

3:1 ratio, which means every one dollar of FUR appropriated funds leverages at least three dollars of non-FUR funds attained from other sources (**Table 1**).

Objective B: Emphasize scholarly and creative outputs that reflect our researchextensive and land-grant missions, the university and college's strategic themes, and stakeholder needs, especially when they directly support our academic programming in natural resources.

Strategies:

- 1. Enhance scholarly modes of discovery, application and integration that address issues of importance to the citizens of Idaho that improve forest and rangeland productivity, regeneration, and rehabilitation, including nursery management practices, fire science and management, and a full range of ecosystem services and products, including environmental quality.
- Create new products, technologies, protocols and processes useful to private sector natural resource businesses — such as timber harvesting and processing, regeneration and rehabilitation firms, working livestock ranches, as well as governmental and non-governmental enterprises and operating units.
- Conduct research and do unbiased policy analyses to aid decision-makers' and citizens' understanding of natural resource and land use policy issues.

Performance Measures:

- Number of research project cases managed and/or services provided by each FUR program segment (Table 2);
- Number of new research projects each year that will lead to scholarship and creativity products (**Table 1**);
- Number of research studies completed per year (Table 1); and
- Number of publications each year (**Table 1**); including research reports, refereed journal articles, and other publications, as well as licensed and/or patented products given credibility by external review processes.

Benchmark:

Number of ongoing and new research projects either averaged over a selected period of time or established as FUR program segment operational targets, with an ongoing objective for benchmarks to stay the same or increase based on investment levels in different FUR program segments.

Goal 2: Outreach and Engagement

Engage with the public, private and non-profit sectors through mutually beneficial partnerships that enhance teaching, learning, discovery, and creativity.

Objective A: Build upon, strengthen, and connect the College of Natural Resources with other parts of the University to engage in mutually beneficial partnerships with stakeholders to address areas targeted in FUR program segments and deliver products and services.

Strategies:

- 1. Enhance the capacity of the College of Natural Resources to engage with communities by involving faculty and students in programs relevant to local and regional issues associated with forest and rangeland management and the maintenance of environmental quality.
- 2. Engage with communities, governmental and non-governmental organizations through flexible partnerships that share resources and respond to local needs and expectations.
- Foster key industry and business relationships that benefit entrepreneurship
 and social and economic development through innovation and technology
 transfer that will increase the productivity of Idaho's forests and rangelands
 while enhancing air and water quality.

Performance Measures:

- Number of service project cases managed and/or key services provided to communities in the state and region, government agencies, non-governmental organizations, private businesses and landowners (**Table 2**).
- Number of workshops and other outreach and engagement activities conducted (**Table 1**).

Benchmark:

Number of outreach and engagement activities with audiences identified above either averaged over a selected period of time or established as FUR program segment operational targets.

Goal 3: Teaching and Learning

Engage students in a transformational experience of discovery, understanding, and global citizenship.

Objective A: Develop effective integrative learning activities to engage and expand student minds.

Strategies:

- Provide undergraduate and graduate students, as well as professionals, with education and research opportunities in nursery management, wood utilization technologies including bioenergy and bioproducts, forest and rangeland regeneration and restoration, fire science and management, and other ecosystem services and products.
- 2. Integrate educational experiences into ongoing FUR and non-FUR research programs at CNR outdoor laboratories, including the University of Idaho Experimental Forest, the Forest Nursery complex, and McCall campus.
- 3. Engage alumni and stakeholders as partners in research, learning, and outreach.

Performance Measure:

Number of teaching projects, courses, and other teaching activities which
use FUR funded projects, facilities, or equipment for educational
purposes, including, as appropriate, professionals as well as
undergraduate and graduate students (Table 2).

Benchmark:

Number of teaching and learning activities conducted over a selected period of time or established as FUR program segment operational targets.

KEY EXTERNAL FACTORS

The key external factors likely to affect the ability of FUR programs to fulfill the mission and goals are as follows: (1) the availability of funding from external sources to leverage state-provided FUR funding; (2) changes in human resources due to retirements or employees relocating due to better employment opportunities; (3) continued uncertainty relative to global, national and regional economic conditions; (4) uncertainty associated with the State of Idaho's commitment to retaining high quality programs associated with the mission of the nation's land grant universities; and (5) changing demand for the state and region's ecosystem services and products.

Table 1. Performance Measures

| Performance Measure | FY | FY | FY | FY | Bench- | FY | FY | FY | FY | FY |
|--|---------------------------|-------------------------|--------------------|-------------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
| | 2010 | 2011 | 2012 | 2013 | mark | 2014 | 2015 | 2016 | 2017 | 2018 |
| Leverage ratio of non-FUR funds to FUR appropriated funds Goal 1, Objective A, Strategy 1, 2 | (a) | (a) | (a) | (a) | 3:1 | 3:1 | 3:1 | 3:1 | 3:1 | 3:1 |
| Number of New Research Projects Per Year: Experimental Forest Forest Operations Policy Analysis Group Pitkin Forest Nursery Rangeland Center Goal 1, Objective A, Strategy 1, 2, 3 Goal 3, Objective A, Strategy 1, 2, 3 | 5 | 5 | 10 | 11 | 4 | 5 | 5 | 5 | 5 | 5 |
| | (b) | (b) | (b) | (b) | 2 | 2 | 2 | 2 | 2 | 2 |
| | 2 | 1 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 5 | 8 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| | (c) | 2 | 3 | 3 | 2 | 10 | 12 | 14 | 14 | 14 |
| Number of Research Studies Completed/Published Per Year: Experimental Forest Forest Operations Policy Analysis Group Pitkin Forest Nursery Rangeland Center Goal 1, Objective B, Strategy 1, 2, 3 | 2 (b) 2 8 (c) | 3 (b) 1 8 0 | 3 (b) 3 5 | 4 (b) 2 5 2 | 4 2 2 5 2 | 4 2 2 5 8 | 5 2 2 5 10 | 5 2 2 5 12 | 5 2 2 6 14 | 5 2 2 6 14 |
| Number of Publications: Experimental Forest Forest Operations Policy Analysis Group Pitkin Forest Nursery Rangeland Center Goal 1, Objective B, Strategy 1, 2, 3 | 2 | 3 | 3 | 4 | 3 | 7 | 7 | 9 | 10 | 12 |
| | (b) | (b) | (b) | (b) | 3 | 3 | 3 | 5 | 5 | 5 |
| | 14 | 14 | 15 | 16 | 10 | 12 | 12 | 12 | 12 | 12 |
| | 7 | 10 | 12 | 12 | 10 | 10 | 10 | 11 | 11 | 11 |
| | (c) | 2 | 8 | 5 | 8 | 16 | 18 | 20 | 20 | 20 |
| Number of Workshops Conducted: Experimental Forest Forest Operations Policy Analysis Group Pitkin Forest Nursery Rangeland Center Goal 2, Objective A, Strategy 1, 2, 3 | 4 | 9 | 6 | 10 | 12 | 12 | 12 | 14 | 14 | 14 |
| | (b) | (b) | (b) | (b) | 4 | 4 | 6 | 6 | 8 | 8 |
| | 26 | 20 | 24 | 8 | 12 | 12 | 12 | 12 | 12 | 12 |
| | 20 | 20 | 20 | 22 | 20 | 20 | 22 | 22 | 22 | 22 |
| | (c) | 2 | 2 | 5 | 2 | 10 | 12 | 14 | 14 | 14 |

⁽a) Although this measure was identified in previous Strategic Plans, it had not been reported until now.

⁽b) Prior to FY 2014 the Forest Operations segment of FUR programs did not receive any FUR funds.

⁽c) Prior to FY 2011 the Rangeland Center segment of FUR programs did not exist.

Table 2. Profile of Cases Managed and/or Key Services Provided

| Cases Managed and/or | | Historic | (actual) |) | Future (estimate) | | | | |
|---|----------|-----------|-----------|----------|-------------------|------|------|---------|---------|
| Key Services Provided | FY | FY | FY | FY | FY | FY | FY | FY | FY |
| • | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
| Number of Private Landowners Assisted: Pitkin Forest Nursery | 1300 | 1300 | 1400 | 1400 | 1450 | 1450 | 1500 | 1500 | 1500 |
| • | 1300 | 1300 | 1400 | 1400 | 1430 | 1430 | 1300 | 1300 | 1300 |
| Number of Seedling Industry Research | | | | | | | | | |
| Projects: Pitkin Forest Nursery | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| · · | | 3 | - | | | | | | |
| Number of: | | | | | | | | | |
| Research Projects: Experimental Forest | 8 | 7 | 13 | 11 | 12 | 12 | 14 | 14 | 16 |
| Forest Operations | (a) | (a) | (a) | (a) | 2 | 4 | 6 | 8 | 10 |
| Policy Analysis Group | (a) 6 | (a) 6 | (a) 8 | (a) 7 | 7 | 7 | 7 | 7 | 7 |
| Pitkin Forest Nursery | 10 | 12 | 10 | 10 | 10 | 11 | 11 | , 12 | , 12 |
| Rangeland Center | (b) | 2 | 4 | 10 | 10 | 10 | 10 | 10 | 10 |
| Teaching Projects: | (D) | | 4 | 10 | 10 | 10 | 10 | 10 | 10 |
| Experimental Forest | 30 | 21 | 24 | 24 | 23 | 23 | 23 | 23 | 23 |
| Forest Operations | (a) | (a) | (a) | (a) | 23 | 4 | 6 | 6 | 23 8 |
| Policy Analysis Group | 26 | (a) 20 | (a) 24 | (a) 8 | 17 | 17 | 17 | 17 | 17 |
| Pitkin Forest Nursery | 5 | 5 | 5 | 8 | 5 | 5 | 5 | 5 | 5 |
| Rangeland Center | (b) | 2 | 9 | 9 | 11 | 11 | 12 | 12 | 13 |
| Service Projects: | (5) | _ | | J | '' | '' | 12 | 12 | 10 |
| Experimental Forest | 2 | 5 | 9 | 9 | 8 | 8 | 8 | 8 | 8 |
| · · | (a) | (a) | (a) | (a) | 4 | 6 | 8 | 10 | 10 |
| Forest Operations Policy Analysis Group | 14 | 14 | 15 | 16 | 15 | 15 | 15 | 15 | 15 |
| Policy Analysis Group Pitkin Forest Nursery | 15 | 15 | 12 | 15 | 12 | 12 | 12 | 12 | 12 |
| Rangeland Center | (b) | 2 | 4 | 11 | 12 | 13 | 13 | 14 | 14 |
| Nangeland Center | (5) | _ | • | | 12 | .0 | | | |

⁽a) Prior to FY 2014 the Forest Operations segment of FUR programs did not receive any FUR funds.

⁽b) Prior to FY 2011 the Rangeland Center segment of FUR programs did not exist.